

RESPONSE UNDER 37 C.F.R. § 1.116
EXPEDITED PROCEDURE – Art Unit 2827
Attorney Docket No. 108298531US

conductive portions with at least part of the first conductive portion separated from the neighboring second conductive portion to define an intermediate region between the conductive portions; electrically coupling the first conductive portion of the conductive member to a first coupling site of the microelectronic substrate and electrically coupling the second conductive portion of the conductive member to a second coupling site of the microelectronic substrate; and providing a dielectric material in the intermediate region between the conductive portions, the dielectric material including argon and/or helium.

2. The method of claim 1 wherein the conductive portions each have a first surface adjacent to the microelectronic substrate, a second surface facing opposite the first surface, and a third surface between the first and second surfaces, and wherein the method further comprises providing the dielectric material adjacent to the third surfaces of the conductive portions.

3. The method of claim 1 wherein the conductive portions each have a first surface adjacent to the microelectronic substrate, a second surface facing opposite the first surface, and a third surface between the first and second surfaces, and wherein the method further comprises disposing the dielectric material on the second surfaces of the conductive portions and applying a force normal to the second surface to displace at least some of the dielectric material into the intermediate region between the conductive portions adjacent to the third surfaces of the conductive portions.

4. The method of claim 1 wherein positioning the conductive member includes positioning a leadframe adjacent to the microelectronic substrate, and wherein the method further comprises providing the dielectric material between neighboring leadfingers of the leadframe.

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5. The method of claim 1 wherein positioning the conductive member includes positioning adjacent to the microelectronic substrate a printed circuit board having conductive traces, and wherein the method further comprises providing the dielectric material between the conductive traces of the printed circuit board.

6. The method of claim 1, further comprising adhering a layer of the dielectric material to the conductive member.

7. The method of claim 1, further comprising:

disposing the dielectric material on the conductive member; and
applying heat and/or pressure to the dielectric material after disposing the dielectric material on the conductive member.

8. The method of claim 1, further comprising disposing the dielectric material on the conductive member in a liquid or vapor phase.

9. The method of claim 1 wherein electrically coupling the conductive portions of the conductive member to coupling sites of the microelectronic substrate includes attaching wire bonds between the conductive portions of the conductive member and bond pads of the microelectronic substrate.

10. The method of claim 1, further comprising disposing an encapsulating material over at least part of the conductive member and the microelectronic substrate.

11. The method of claim 1, further comprising selecting the dielectric constant of the dielectric material to be from about 1.0 to about 2.0.

12. The method of claim 1, further comprising selecting the dielectric material to include polytetrafluoroethylene.

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13. (Cancelled)

14. (Amended) The method of claim 16, further comprising selecting the dielectric material to have a dielectric constant of from about 1.0 to about 2.0.

15. (Cancelled)

16. (Twice amended) A method for processing a circuit board for coupling to a microelectronic substrate, comprising:

providing a circuit board having a first conductive trace with a portion spaced apart from a corresponding portion of a second conductive trace to define an intermediate region between the first and second conductive traces; disposing in the intermediate region between the conductive traces a dielectric material; and

selecting the dielectric material to include argon and/or helium.

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

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24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Cancelled)

30. (Cancelled)

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (Cancelled)

35. (Cancelled)

36. (Cancelled)

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37. (Cancelled)

38. (Cancelled)

39. (Cancelled)

40. (Cancelled)

41. (Cancelled)

42. (Cancelled)

43. (Cancelled)

44. (Cancelled)

45. (Cancelled)

46. (Cancelled)

47. (Cancelled)

48. (Cancelled)

49. (Cancelled)

50. (Cancelled)

51. (Cancelled)

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52. (Cancelled)
53. (Cancelled)
54. (Cancelled)
55. (Cancelled)
56. (Cancelled)
57. (Cancelled)
58. (Cancelled)
59. (Cancelled)
60. (Cancelled)
61. A method for packaging a microelectronic substrate, comprising:
positioning leadfingers of a leadframe adjacent to corresponding bond sites of
the microelectronic substrate;
disposing a first dielectric material adjacent to first surfaces of the leadfingers
and the microelectronic substrate;
disposing a second dielectric material adjacent to second surfaces of the
leadfingers facing opposite the first surfaces;
removing a portion of the second dielectric material from the second surface of
each leadfinger to expose a portion of the second surface of each
leadfinger;

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electrically coupling the leadfingers to the bond sites by attaching wire bonds between the exposed portions of the leadfingers and the bond pads; and introducing at least some of the first and/or second dielectric material into a gap between adjacent leadfingers by biasing the leadframe toward the microelectronic substrate and/or applying heat to at least one of the dielectric materials.

62. (New) The method of claim 61, further comprising disposing at least some of the first and/or second dielectric material in a liquid or vapor phase into a gap between adjacent leadfingers.

63. (New) The method of claim 61, further comprising disposing an encapsulating material over at least part of the leadframe and the microelectronic substrate.

64. (New) The method of claim 61, further comprising selecting the dielectric constant of the first and/or second dielectric material to be from about 1.0 to about 2.0.

65. (New) The method of claim 61, further comprising selecting the first and/or second dielectric material to include polytetrafluoroethylene.

66. (New) The method of claim 61, further comprising selecting the first and/or second dielectric material to include a gas.

67. (New) The method of claim 61, further comprising selecting the first and/or second dielectric material to include argon and/or helium.